






HOLLOW GLASS SPHERES

Patent number: GB2256867
Publication date: 1992-12-23
Inventor: GOETZ KENNETH E; HAGARMAN JAMES A;
GIOVENE JR JOSEPH P
Applicant: POTTERS INDUSTRIES INC (US)
Classification:
- international: C03C12/00; C03C3/078; C03C3/085; C03C3/087;
C03C3/091; C03C3/093; C03C3/097; C03C11/00;
C03C12/00; C03C3/076; C03C11/00; (IPC1-7):
C03C3/078; C03C3/083; C03C3/085; C03C3/087;
C03C3/089; C03C3/091; C03C3/093; C03C3/097;
C03C3/112; C03C3/115; C03C12/00
- european: C03C3/078; C03C3/085; C03C3/087; C03C3/091;
C03C3/093; C03C3/097; C03C11/00B
Application number: GB19910003510 19910220
Priority number(s): US19880236042 19880824; WO1989US03382
19890807

Also published as:

 WO9002102 (A1)
 EP0430995 (A1)
 US4983550 (A1)
 JP2069336 (A)
 ES2018910 (A6)

more >>

[Report a data error here](#)

Abstract not available for GB2256867

Data supplied from the **esp@cenet** database - Worldwide

(12) **UK Patent Application** (19) **GB** (11) **2 256 867** (13) **A**
(43) Date of printing by UK Office 23.12.1992

<p>(21) Application No 9103510.5</p> <p>(22) Date of filing 07.08.1989</p> <p>(30) Priority data (31) 236042 (32) 24.08.1988 (33) US</p> <p>(86) International application data PCT/US89/03382 En 07.08.1989</p> <p>(87) International publication data WO90/02102 En 08.03.1990</p>	<p>(51) INT CL⁶ C03C 12/00 3/078 3/083 3/085 3/087 3/089 3/091 3/093 3/097 3/112 3/115</p> <p>(52) UK CL (Edition K) C1M MPB M440</p> <p>(56) Documents cited by ISA US 4661137 A M.B. VOLF, "CHEMICAL APPROACH TO GLASS"(7) 1984, ELSEVIER NEW YORK PP 219-221,229, 418-421,408-418</p> <p>(58) Field of search by ISA US 501/33,39,57,58,59,63,66,67,68,69,70,72.</p>
<p>(71) Applicant Potters Industries Inc (Incorporated in the USA - New Jersey) Waterview Corporate Centre, 20 Waterview Boulevard, Parsippany, New Jersey 07054, United States of America</p> <p>(72) Inventors Kenneth E Goetz James A Hagarman Joseph P Giovene Jr</p> <p>(74) Agent and/or Address for Service Carpmaels & Ransford 43 Bloomsbury Square, London, WC1A 2RA, United Kingdom</p>	

(54) **Hollow glass spheres**

(57) Hollow glass spheres having average densities of approximately 10 grams/cc to approximately 2.0 grams/cc are prepared by heating solid glass particles. The glass spheres consist essentially of the following ingredients in the following amounts stated as weight percentages: SiO₂ (50 to 57 %); R₂O (2 to 15 %); B₂O₃ (0 to 20 %); S (.05 to 1.5 %); RO (2 to 25%); RO₂ (other than SiO₂) (0 to 5 %); R₂O₃ (other than B₂O₃) (0 to 10 %); R₂O₅ (0 to 5 %); and F (0 to 5 %). R represents a metal or an element like phosphorous which combines with oxygen in glass. The sizes of the hollow glass spheres are selected to produce a maximum average strength for a desired average density.

GB 2 256 867 A